

ART. XV.—*Further Descriptions of the Tertiary Polyzoa
of Victoria.*—Part VI.

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(With Plates XXXIV. and XXXV.).

[Read 13th December, 1900].

Membranipora ligulata, n. sp. (Pl. XXXIV., Fig. 1).

Zoarium erect, bilaminar, branching. Zooecia undefined, margins only indicated occasionally by a slight longitudinal furrow. Opesia oval, margins finely striated, raised above the surface of the zooecia. Small oval, raised avicularia, with triangular mandibular areas, scattered between the zooecia. Large vicarious avicularia on margins of zoaria, with a bar; mandible triangular, acute, pointing upwards; occasionally the bar is present with a semicircular cavity below, but more often the bar is broken away, making the opening appear pear-shaped (inverted).

Locality.—Aire Coastal Beds (Messrs. Hall and Pritchard).

This might be mistaken for *Hiantopora liversidgei*, on account of the large vicarious avicularia on the margin of the zoaria being somewhat similar in shape and position to those of that species, but I consider it quite distinct. The zooecia are very much smaller (less than half the size), and the opesia are elongated oval, not semicircular (occasionally there is a mucro projecting from the side of the opesia). An examination of broken specimens shows that the dorsal surfaces of these two species are quite different. In *H. liversidgei* they are more or less oval; in the species now described they are very long with square ends and less than half the width of those of *H. liversidgei*.

It is very numerous in the deposit. In age the zooecia are more calcified and the small avicularia are almost hidden.

Macropora cribrilifera, n. sp. (Pl. XXXIV., Fig. 2).

Zooecia elongated, hexagonal; margins narrow, raised; surface granular with scattered pore-like depressions. Thyrostome

arched above, slightly incurved below; margins raised; opercula calcareous. Ooecia large, oval, ribbed, with a central keel, sessile on zooecia.

Locality.—Mitchell River (J. Dennant).

A single specimen. The oocidium is of large size and is unfortunately imperfect, the front being broken away, but it was evidently cribriform with a central rib. The specimen is noteworthy, because in three of the zooecia the opercula are preserved and they are calcareous.

Cribrilina turgida, n. sp. (Pl. XXXIV., Fig. 3).

Zoarium encrusting. Zooecia oval, margins undefined; front wall thick and porcellaneous, with large pores irregularly disposed over the surface, the marginal pores incomplete showing as a series of small arches. Thyrostome opening upwards, lower margin thick, projecting and curved, upper margin invisible, apparently continuous with the dorsal wall. Ooecia galeate, smooth.

Locality.—Aire Coastal Beds (Messrs. Hall and Pritchard).

I have found two specimens of this species, one with ooecia (part of which is figured), the other without. This species is near *C. labiosa*, Busk, variety, *a fragilis* (C.P. xxx., p. 133, pl. xix., fig. 4), but there is no projecting spout in the front of the thyrostome, and the margin of the front wall is different, the shape of the zooecia being undefined and not distinctly "barrel-shaped" as described and figured by Busk.

Micropora elegans, n. sp. (Pl. XXXIV., Fig. 4).

Zoarium encrusting. Zooecia generally ovate, but often irregularly quadrate; margins very much raised and prominent; surface depressed but slightly convex, with small scattered pores; occasionally a very small opesiule in the upper angles of the zooecia. Thyrostome semicircular, margin raised. Ooecia globose, finely granular; a narrow smooth depression, interrupted in the middle, just above the aperture. Small avicularia above the thyrostome of infertile zooecia.

Locality.—Aire Coastal Beds (Messrs. Hall and Pritchard).

I have several specimens, all growing on *Membranipora ligulata*. It is near *M. coriacea* but differs from it. There are no

“knobs,” most of the cells have no opesiules, but in a few there are indications of a very minute one in the upper angles. It is also near *M. variperforata*, Waters, but the zooecia are much shorter in proportion to the length and also more irregular in shape.

***Micropora lunipuncta*, n. sp.** (Pl. XXXIV., Fig. 5).

Zoarium encrusting. Zooecia elongated, oval; margins thick, raised; surface slightly convex with small scattered pores; a rather large, more or less crescentic opesiule on each side, about one-third of the length of the cell from the distal end of the zooecia. Thyrostome semicircular with raised margins and a small avicularium above.

Locality.—Aire Coastal Beds (Messrs. Hall and Pritchard).

This is closely allied to the last species, but the zooecia are much larger, of a different shape and they have large crescentic opesiules; in the upper angles of some of the zooecia there is also a minute pore. On the right hand side of the figure will be seen a very irregularly shaped zooecium.

These two species have given me considerable trouble. I, at first, assumed that they were probably varieties of *M. elongata*, *Hincks sp.* as figured by Mr. Waters in A.M.N.H., series 6, vol. vi., pl. i., fig. 22 (not fig. 21), but he unites his *M. variperforata*, with that species, and considers both are the same as that described by Hincks as *Steganoporella elongata*. The descriptions and figures do not seem to warrant this. That figured by Mr. Waters (alluded to above) and his *M. variperforata*, are most probably the same species, but I do not think either can be *Steganoporella elongata*, Hincks (A.M.N.H., series 5, vol. vi., p. 380, pl. xvi., fig. 4), as Hinck's figure shows very large opesiules, a depression below, and at some distance from the thyrostome, and the avicularia point upwards, not downwards. Hincks placed it in *Steganoporella*, but Prof. Harmer states¹ that there are never any avicularia in *Steganoporella*, though they are present in the allied genus *Thalamoporella*, to which genus this species (*S. elongata*) should be referred.

¹ Q.J.M.S., vol. xxxiii., N.S., p. 236.

Micropora carinata, n. sp. (Pl. XXXIV., Fig. 6).

Zoarium cylindrical. Zooecia elongated, hexagonal with a central longitudinal ridge or keel; surface either granulated or with scattered pores; distal end protrudes. Thyrostome raised, semicircular, with thickened margin.

Locality.—Mitchell River (J. Dennant). This is very plentiful in the deposit.

Membraniporella decorata, n. sp. (Pl. XXXIV., Fig. 7).

Zooecia elongate, irregular in form, with oval raised area bearing 10 ribs on each side, which are thickened so as to show a circular convex elevation, and a very small round cavity on the inner portion of each rib. Thyrostome suborbicular, with a slight projection on each side. Ooecium elliptical, globose, adnate, situated obliquely on one side of upper part of the zooecium; ooecial aperture broad, arched above, straight below.

Locality.—Morningson (T. S. Hall).

The single small specimen figured is the only one I have found. The structure of the ribs, and the obliquity of the ooecium show it to be quite distinct from any other species.

Membraniporella rugosa, n. sp. (Pl. XXXIV., Fig. 8).

Zooecia oval, margins undefined; front surface with 9–11 thick rugose ribs. Thyrostome suborbicular, with thick raised margins, slightly incurved towards the lower part; operculum calcareous and apparently hinged to the incurved part of the margin of the thyrostome. Ooecia elongated, oval with a longitudinal very slightly raised median rib, and a few small scattered perforations; ooecial aperture arched above with similar, but much more prominent, incurvations to those of the zooecia.

Locality.—Mitchell River (J. Dennant).

The distinguishing features of this species are the large rugose ribs, the calcareous opercula apparently hinged at the sides and the elongated oval ooecia.

Corbulipora ampulla, n. sp. (Pl. XXXIV., Fig. 9).

Zooecia oval, front much raised, with large margined pores

irregularly disposed on the surface; the sides with a regular series of upright elongated pores. Thyrostome invisible, the peristome being very much produced.

Locality.—Mornington (T. S. Hall).

The specimen figured is the only one I have found, it has particles of pyrites scattered over it. It is a difficult matter to place this correctly, but I have provisionally placed it in *Corbulipora*, as it appears to me to have an affinity to *Corbulipora ornata*, McG.

Microporella rugosa, n. sp. (Pl. XXXIV, Fig. 10).

Zooecia very flat, undefined but apparently hexagonal, with a row of elongated pores round the margins; a few scattered pores on the surface; two smaller ones below the thyrostome and below and between them a deeper pore, apparently penetrating to the zooecial chamber. Thyrostome subtriangular with five spines round it; between the marginal pores and the others the surface is more or less raised into a rugose ridge. An avicularium, with a long triangular mandible pointing upwards and outwards on each side below the thyrostome.

Locality.—Lower Beds, Muddy Creek (J. Dennant).

The whole surface is very flat, and the margins of the zooecia are only here and there perceptible. The situation of the five spines surrounding the upper part of the thyrostome is indicated by pores, which, in many cases, have broken into the margin, giving an irregular form to it, but in two cases the perfect form is preserved.

Lepralia burlingtoniensis (Waters). Pl. XXXV., Fig. 11).

This species recorded by Mr. Waters from Aldinga, River Murray Cliffs, Mount Gambier, and Bairnsdale has not been recorded by Dr. MacGillivray, though I have found it fairly numerous in the deposits from Mitchell River, near Bairnsdale. I have also found it in the upper and lower beds Muddy Creek, Mornington, Griffin's (Moorabool), Cape Otway, and Aire coastal beds. I figure a specimen showing ooecia; they are globose, very much immersed, with pores on the upper portion; the aperture is arched above and the lower lip has a broad sinus. The

infertile zooecia show a denticle on each side giving it somewhat the appearance of a *Schizoporella*; this is not mentioned by Mr. Waters, nor shown in his figure.

Lepralia costata, n. sp. (Pl. XXXV., Fig. 12).

Zooecia elongated, hexagonal with broad very highly raised margins; surface depressed and concave, with a few scattered pores. Thyrostome oval, with a denticle on each side, situated at the upper extremity of the zooecia and at the junction of the raised margins, the narrow portion of the ridges of which divide and surround the thyrostome. Ooecia immersed, with very large semicircular aperture.

Locality.—Mitchell River (J. Dennant).

This I thought at first to be merely a variety of *L. burlingtoniensis*, as the chief distinction in those specimens with no ooecia was that the surface of the zooecia was concave, not convex, and the marginal ridges were very prominent; but when I found a specimen with an ooecial aperture it proved to be a different species. The ooecia appear to be wholly immersed, the aperture only showing.

Lepralia clavata, n. sp. (Pl. XXXV., Fig. 13).

Zoarium cylindrical, clavate. Zooecia diamond shaped; margins narrow, raised; surface convex, smooth. Thyrostome oval, at the upper extremity of the zooecia and at the junction of the margins. Ooecia large, globose, subrotund, with two irregular rows of rather large pores; aperture broad, arched above, concave below. Fertile zooecia with a few scattered pores.

Locality.—Clifton Bank, Muddy Creek (T. S. Hall).

This is evidently closely allied to *L. burlingtoniensis*, but the infertile zooecia have no pores and the ooecia are very much larger than the zooecia. There is a small cylindrical structure extruding from the thyrostome of the zoecium immediately below the fertile zoecium, but what it is I cannot say, it is evidently a parasitic growth.

Lepralia radiata, n. sp. (Pl. XXXV., Fig. 14).

Zoarium incrusting. Zooecia broad, irregularly hexagonal, distinct, with narrow raised margins; surface convex, with

granulated furrows radiating from a small oval avicularium, which is slightly raised and nearly in the centre of the zooecium. Thyrostome lofty, oval; a denticle on each side below the middle; lower lip hollowed.

Localities.—Orphanage Hill, Geelong (T. S. Hall); Mitchell River (J. Dennant).

This has somewhat the appearance of a *Schizoporella*, but the denticles at side are of a Lepralian character; it has not a true sinus.

Lepralia quadratipunctata, n. sp. (Pl. XXXV., Fig. 15).

Zooecia broadly oval, surrounded by one row (in some cases two rows) of subquadrate pores; middle smooth, convex. Thyrostome suborbicular, surrounded with 9–10 spines. An avicularium with long mandible pointed upwards on each side of the thyrostome. Ooecia globose, sub-immersed, smooth, surrounded by a row of subquadrate pores and two spines on each side of aperture.

Locality.—Clifton Bank, Muddy Creek (T. S. Hall).

This is a very distinct and beautiful species, the subquadrate pores are characteristic; the avicularia show denticles near the base, which are probably the remains of a bar, or, at any rate, the points of attachment of the mandible.

Lepralia cribrosa, n. sp. (Pl. XXXV., Fig. 16).

Zooecia elongated, convex, with very numerous large pores scattered over the surface. Thyrostome suborbicular, margin slightly thickened, lateral denticles small, no spines and no avicularia.

Locality.—Jimmy's Pt., Reeves River (J. Dennant).

This is a very distinct form, the thyrostome is broader than high, and the lateral denticles are very small, too small to show in the figure.

Lepralia calopora, n. sp. (Pl. XXXV., Fig. 17).

Zooecia irregularly hexagonal; margins narrow, raised; surface granulated; a very regular row of rather large pores all

round the cell, just inside the margin. Thyrostome broadly elliptical with a denticle on each side near the lower margin, which is nearly straight. Ooecia globular, partly immersed, with a few large round depressions on the surface; ooecial aperture semicircular with a denticle at each lower angle.

Locality.—Lower Beds, Muddy Creek (J. Dennant).

A single specimen. A very elegant species characterized by the very regular row of round pores on the margin of the zooecia.

***Lepralia airensis*, n. sp. (Pl. XXXV., Fig. 18).**

Zoarium cylindrical. Zooecia oval, margins raised; surface convex, granulated. Thyrostome oval, with a denticle on each side near the lower margin; margins raised; a small avicularium in the lower margin, but entirely outside the thyrostome. Ooecia globose, granulated.

Locality.—Aire Coastal Beds (Hall and Pritchard).

This is rather difficult to place; it somewhat resembles a *Porella*, but as the small avicularium is entirely outside the margin of the thyrostome, and as it has the denticles characteristic of *Lepralia*, I place it in that genus.

***Lepralia partipunctata*, n. sp. (Pl. XXXV., Fig. 19).**

Zooecia hexagonal, elongate; margins narrow, raised; surface covered with small round pores, except on an elongated triangular space below the thyrostome. Thyrostome suborbicular.

Locality.—Mitchell River (J. Dennant).

A single specimen. This is a very elegant species and much resembles *Phylactella porosa*, McG., but the zooecia are quite flat, and the thyrostome has a denticle on each side, and is destitute of a raised peristome.

***Lepralia mamillifera*, n. sp. (Pl. XXXV., Fig. 20).**

Zooecia elongated, covered with large globular nodules. Thyrostome suborbicular, with raised peristome, and on each side there is an avicularium, with the mandible pointing inwards, on a highly raised rugose prominence.

Locality.—Clifton Bank, Muddy Creek (T. S. Hall).

A single specimen. The highly raised avicularium projects over the thyrostome so much as to give it the appearance of being hour-glass shaped, but the true shape can be distinguished, it is suborbicular, slightly broader distally, with a denticle on each side near the proximal portion.

Ovaticella, nov. gen.

Zooecia ovate, ventricose; a large perforated area in front. Thyrostome transversely elliptical, opening upwards.

Ovaticella turbinata, n. sp. (Pl. XXXV., Fig. 21).

Zoarium unilaminar. Zooecia oval, much raised, distinct, arising from a flat surface; the actual margins or junction of the zooecia being indistinguishable. In the centre there is a large circular perforated area, above which are a large and small pore on each side below the thyrostome. Thyrostome transversely elliptical, at the summit of the zooecia, opening upwards.

Locality.—Mitchell River (J. Dennant).

A single specimen, which is not in very good preservation. The perforated area has broken away, leaving a large stellate opening. This area and the shape and aspect of the thyrostome are very distinctive.

EXPLANATION OF FIGURES.

PLATES XXXIV., XXXV.

- Fig. 1.—*Membranipora ligulata*. α . vicarious avicularia.
 „ 2.—*Macropora cribrilifera*.
 „ 3.—*Cribrilina turgida*.
 „ 4.—*Micropora elegans*.
 „ 5.—*Micropora lunipuncta*.
 „ 6.—*Micropora carinata*. α . front view of zoecium with pores.
 „ 7.—*Membraniporella decorata*.
 „ 8.—*Membraniporella rugosa*.
 „ 9.—*Corbulipora ampulla*.

